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|  | 1.  |             |   | Ĺ                           | U.S. <b>UTILITY</b> Patent Application |                     |               |                   |                        |             | TE -                 |                 | <del></del>    |  |
|  |   |             |   |                             | O.I.P.E.                               |                     |               |                   |                        | PATENT DATE |                      |                 |                |  |
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| APPLICATION NO. CONT/PRIOR   |   | -           | 1   |                             | 627                                    | 281                 |               | 1 1               |                        | . VU        |                      |                 |                |  |
| Wei Pan Yoshi Ono David Evans Sheng Hsu  |   |             |   |                             |  |                     |               |                   |                        |             |                      |                 |                |  |
|  | Multi-layered barrier metal thin films for Cu interconnect by ALCVD |             |   |                             |  |                     |               |                   |                        |             |                      |                 |                |  |
| TTLE   | PTO-2040<br>12/99   |             |   |                             |  |                     |               |                   |                        |             |                      |                 |                |  |
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| TERMINAL<br>DISCLAIMER   |   |             | DRAWINGS                                    |                             |  |                     |               |                   | CLAIMS ALLOWED         |             |                      |                 |                |  |
|  |   |             |   |                             |  | s. Drwg. Print Fig. |               | + 7               | Total Claims           |             | Print Claim for O.G. |                 |                |  |
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| The term of this patent  |   |             |   |                             |  | ļ                   |               |                   | N                      | ОТІС        | E OF ALL             | OWANCE I        | AILED          |  |
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| nas been disclaimed.   |   |             |   | (Assistant Examiner) (Date) |  |                     |               |                   | $\dashv$               |             |                      |                 |                |  |
| The term of this patent shall not extend beyond the expiration date of U.S Patent. No. |   |             |   |                             |  |                     |               |                   | ISSUE FEE              |             |                      |                 |                |  |
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| The terminalmonths of this patent have been disclaimed.                                |   |             | •   |                             |  |                     |               |                   | ISSUE BATCH NUMBER     |             |                      |                 |                |  |
|  |   |             | (Legal Instruments Examiner) (Date)         |                             |  |                     |               |                   |                        |             |                      |                 |                |  |
| The i  | RNING:  | n disclose  | d herein may be res<br>J.S. Patent & Trader | tricted                     | . Unauthorized of                      | disclos             | sure may be p | prohibited by the | ne United              | States      | Code Title 35        | i, Sections 122 | , 181 and 368. |  |
|  | TO-436A   | Side file ( | J.O. 1 GION & HAUE!                         |                             |  | aut                 |               | FILED WIT         |                        |             | (ODE) E              | Jeigue 1        | CD-BOA         |  |